[Volatile Hiring: Uncertainty in Search and Matching Models](#)

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There is a large empirical literature which demonstrates that uncertainty is time-varying and that increased volatility negatively affects macroeconomic activity; even an increase in perceived uncertainty has been shown to lead to negative outcomes. Understanding the mechanisms behind these empirical results is not trivial. In fact, several models would predict the opposite. Precautionary motives call forth an increase in savings, which in many macroeconomic models would be associated with an increase in investment. Also, limited liability means that a firm's payoff function is convex, which in turn implies that uncertainty increases firm value and makes investment more attractive.

Leduc and Liu (2016) provide important contributions to both the empirical and the theoretical literature. Empirically, they show that an increase in observed *perceived* uncertainty leads to an increase in the unemployment rate. Moreover, they demonstrate that a standard search and matching (SaM) model can replicate this finding. This is an important insight given the huge popularity of SaM models to study many different types of economic questions. The question arises what mechanism lies behind their results. They conjecture that it is due to the famous option value of postponing investment. The idea is the following. Increased uncertainty may make it more attractive to wait and postpone investment because one benefits from upward potential in returns, but one is shielded from downward potential because one can always decide not to invest. Job creation is very much like an investment opportunity, so the option value channel is a sensible candidate to consider.

In this paper, we carefully analyse the properties of the model to bring to the surface what really lies behind this intriguing theoretical result. To do so, we do not only look at the responses of an increase in uncertainty that never materializes, as is done in Leduc and Liu (2016), but also to the expected time paths of variables that do take into account the expected increase in uncertainty. The later turn out to be crucial to understand the first. We also look at different versions of the SaM model. The analysis leads to the conclusion that matching frictions *by themselves* dot *not* lead to a decrease in firm values and economic activity if one considers just the anticipated effect of uncertainty as is done in Leduc and Liu (2016). However, for standard calibrations the nonlinearities of the matching friction do imply that periods of higher volatility are expected to go together with periods of higher unemployment rates. Interestingly, there are also parameter values where the unemployment rate is expected to decline initially.

We show that the result in Leduc and Liu (2016) that an increase in perceived uncertainty does lead to decreases in firm values and increases in the unemployment rate turn out to be *not* due to an option value channel, but to the particular form of wage bargaining used, Nash bargaining.